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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,069

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Armin Meinzer

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11/17/2008

NOVARTIS  
CORPORATE INTELLECTUAL PROPERTY  
ONE HEALTH PLAZA 104/3  
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EXAMINER

CHANNAVAJJALA, LAKSHMI SARADA

ART UNIT

PAPER NUMBER

1611

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/781,069	<b>Applicant(s)</b> MEINZER ET AL.	
	<b>Examiner</b> Lakshmi S. Channavajjala	<b>Art Unit</b> 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-24 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10-6-08</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Receipt of amendment and response dated 7-29-08 and IDS dated 10-6-08 is acknowledged.

Claims 1-11 and 25 are canceled. Claims 12-24 and 26 are pending.

Instant claims recite "wherein less than 5% of oils apart from those present in the surfactant, are present in the composition", that is supported on page 2, lines 9-12.

The following rejections of record have been maintained:

#### ***Double Patenting***

Claims 12-24 and 26 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,432,445 ('445) in view of US 5,962,019 ('019). '445 claim a capsule comprising cyclosporin, a polyoxyethylene sorbitan fatty acid ester, a reaction product of a natural or hydrogenated castor oil and ethylene glycol and ethanol. Component C of the '445 capsule reads on the instant surfactant. '445 capsules do not contain the polyethylene glycol of the instant claims.

'019 teach hard gelating capsules comprising cyclosporin formulations (abstract, col. 3 L 10-25). '019 teaches that the compositions contain an orally acceptable vehicle comprising at least one alkanol solvent constituting an alkanol having 2 to 3 carbon atoms and a co-solvent selected from fatty acids and diols (col. 4, L 28-41). Among the diols, '019 teach the claimed polyethylene glycols (col. 5, L 1-25 and examples in col. 8-10). '019 further teach incorporating at least one surfactant, such as polyoxyalkylene

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surfactant having an HLB value of 5 to 20 or preferably 8 to 16. Thus, both '445 and '019 are directed to cyclosporin containing capsule formulations. It would have been obvious for one of an ordinary skill in the art at the time of the instant invention to include polyethylene glycol, of '019 in the cyclosporin composition of '445 as a co-solvent for the lower alkanol solvent of '445 because '019 teach that the polyethylene glycol co-solvents adsorb water molecules, which may be present in the formulations thereby reducing the possibility for precipitation of the cyclosporin from the formulations, and also impart desirable properties such as viscosity, stability etc. Accordingly, a skilled artisan would have expected to achieve greater stability of the composition of '445 by incorporating the PEG of '019.

### ***Response to Arguments***

Applicant's arguments filed 7-29-08 have been fully considered but they are not persuasive.

Applicants argue that no secondary reference may be combined with the claims of a reference (over which double patenting rejection is made) to reject instant claims. It is argued that the that claims 1- 9 of the '445 patent all recite a polyoxyethylene sorbitan fatty acid ester (claims 1-3) and both a polyoxyethylene sorbitan fatty acid ester and a sorbitan fatty acid ester (claims 4- 9) and in contrast, the presently amended claims do not recite either a polyoxyethylene sorbitan fatty acid ester or a sorbitan fatty acid ester. Looking only at the claims of the '445 there cannot be double patenting analysis.

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The argument is not persuasive because the statute clearly allows rejecting the claims of an application over the entire teachings of a secondary reference (see MPEP 804 [R-5]). Further, omission of an element and its Function is Obvious if the function of the element is not desired. Accordingly, a skilled artisan would have been able to determine the utility of additional components such as sorbitan fatty acid ester of the claims of '445 and would be able to either employ or eliminate in the composition of the hard gelatin capsule such that the capsule delivers the optimum amount of the drug cyclosporine.

Claims 12-24 and 26 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 6,767,555 ('445) in view of US 5,962,019 ('019).

'555 claim a capsule comprising cyclosporin, a polyoxyethylene sorbitan fatty acid ester, a reaction product of a natural or hydrogenated castor oil and ethylene glycol and ethanol. Component C of the '555 capsule reads on instant surfactants. '555 capsules do not contain the polyethylene glycol of the instant claims.

'019 teach hard gelating capsules comprising cyclosporin formulations (abstract, col. 3 L 10-25). '019 teaches that the compositions contain an orally acceptable vehicle comprising at least one alkanol solvent constituting an alkanol having 2 to 3 carbon atoms and a co-solvent selected from fatty acids and diols (col. 4, L 28-41). Among the diols, '019 teach the claimed polyethylene glycols (col. 5, L 1-25 and examples in col. 8-

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10). '019 further teach incorporating at least one surfactant, such as polyoxyalkylene surfactant having an HLB value of 5 to 20 or preferably 8 to 16. Thus, both '555 and '019 are directed to cyclosporin containing capsule formulations. It would have been obvious for one of an ordinary skill in the art at the time of the instant invention to include polyethylene glycol, of '019 in the cyclosporin composition of '555 as a co-solvent for the lower alkanol solvent of '555 because '019 teach that the polyethylene glycol co-solvents adsorb water molecules, which may be present in the formulations thereby reducing the possibility for precipitation of the cyclosporin from the formulations, and also impart desirable properties such as viscosity, stability etc. Accordingly, a skilled artisan would have expected to achieve greater stability of the composition of '555 by incorporating the PEG of '019.

### ***Response to Arguments***

Applicant's arguments filed 7-29-08 have been fully considered but they are not persuasive.

Applicants argue that no secondary reference may be combined with the claims of a reference (over which double patenting rejection is made) to reject instant claims. It is argued that the that claims 1- 14 of the '555 patent all recite a polyoxyethylene sorbitan fatty acid ester and both a polyoxyethylene sorbitan fatty acid ester and a sorbitan fatty acid ester and in contrast, the presently amended claims do not recite either a polyoxyethylene sorbitan fatty acid ester or a sorbitan fatty acid ester. Looking only at the claims of the '555 there cannot be double patenting analysis.

The argument is not persuasive because the statute clearly allows rejecting the claims of an application over the entire teachings of a secondary reference (see MPEP 804 [R-5]). Further, omission of an element and its Function is Obvious if the function of the element is not desired. Accordingly, a skilled artisan would have been able to determine the utility of additional components such as sorbitan fatty acid ester of the claims of '555 and would be able to either employ or eliminate in the composition of the hard gelatin capsule such that the capsule delivers the optimum amount of the drug cyclosporine.

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 12-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,342,625 to Hauer et al (Hauer) in view of US 5,962,019 ('019) to Cho.

Hauer teaches cyclosporin comprising pharmaceutical compositions in the form of microemulsion pre-concentrates and that are filled in hard gelatin capsules (abstract, examples, col. 29, lines 11-14). Examples in col. 26-29 are directed cyclosporin formulation, which include surfactants Cremophor RH 40, which is described as a reaction product of hydrogenated or natural vegetable oil and ethylene glycol, with an HLB value of 14-16. Thus, the surfactant of Hauer meets the claimed surfactant component. Hauer also teaches composition comprising propylene glycol and ethanol that read on the claimed lower alkanols (col. 18, last paragraph to col. 19, 1<sup>st</sup>

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paragraph). The pre-concentrate compositions of Hauer are free of water and form spontaneous emulsions (col. 5, lines 57 through col. 6, lines 35) and hence meet the claims 22, 23 and 26. Hauer teaches various amounts of cyclosporin in the examples that is within the claimed ranges (claim 16). Not all of the compositions of Hauer contain additional oils and therefore read on the less than 5% of oils apart from those present in the surfactant.

Hauer fails to teach polyethylene glycol in combination with the lower alkanols. Cho teaches hard gelating capsules comprising cyclosporin formulations (abstract, col. 3 L 10-25). Cho teaches that the compositions contain an orally acceptable vehicle comprising at least one alkanol solvent constituting an alkanol having 2 to 3 carbon atoms and a co-solvent selected from fatty acids and diols (col. 4, L 28-41). Among the diols, Cho teaches the claimed polyethylene glycols (col. 5, L 1-25 and examples in col. 8-10). 'Cho teach incorporating at least one surfactant, such as polyoxyalkylene surfactant having an HLB value of 5 to 20 or preferably 8 to 16. Thus, both Hauer and Cho teach cyclosporin compositions comprising a surfactant and hydrophilic solvents, constituting analogous art. Therefore, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to include polyethylene glycol, of Cho in the cyclosporin composition of Hauer as a co-solvent for the lower alkanol solvent of because Cho teaches that the polyethylene glycol co-solvents adsorb water molecules, which may be present in the formulations thereby reducing the possibility for precipitation of the cyclosporin from the formulations, and also impart desirable properties such as viscosity, stability etc. Accordingly, a skilled artisan would have



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expected to achieve greater stability of the composition of Hauer containing cyclosporin by incorporating the PEG of '019. Further, optimizing the amount of solvents and co-solvents in the composition of Hauer with an expectation to achieve the desired solubility and optimum stability would have been within the scope of a skilled artisan. While Hauer does describe oils, the examples of Hauer do not necessarily contain oils while instant claims recite that less than 5% of oils apart from those present in the surfactant, applicants have not shown any unexpected advantage with the claimed limit of less of than 5%.

### ***Response to Argument***

Applicant's arguments filed 7-29-08 have been fully considered but they are not persuasive.

Applicants argue that Cho teaches at least one no-ionic polyoxyalkylene surfactant such as BRIJ 30 and TWEEN 80, which are not included in the present amended claims. It is argued that why a person of ordinary skill in the art should would have chosen to include PEG of Cho but omit the nonionic surfactant of Cho in the instant claims. Applicants' arguments are not persuasive because Hauer clearly emphasizes the need for minor amounts of water in col.5, L 54-63, and Cho teaches that addition of PEG reduces excess water. Further, the teachings of Cho have been cited for including polyethylene glycol, which is absent in Hauer. Cho teaches polyethylene glycol for the advantage of absorbing water molecules that may be present in the composition thereby reducing the possibility for precipitation of the cyclosporine and also impart the desired viscosity and stability. Therefore, a skilled

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artisan p [preparing microemulsions without or minimum amounts of water would have looked at the teachings of Cho, also directed to cyclosporine compositions where excess water is absorbed to impart stability. Hence the rejection has been maintained.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S. Channavajjala whose telephone number is 571-272-0591. The examiner can normally be reached on 9.00 AM -5.30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila G. Landau can be reached on 571-272-0614. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lakshmi S Channavajjala/  
Primary Examiner, Art Unit 1611  
November 10, 2008